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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Srivatsa Venkatasubbarao; Lothar U. Kempen  
Assignee: Maven Technologies, LLC  
Title: Apparatus Including A Biochip For Imaging Of Biological Samples And Method  
Serial No.: 09/838,700 Filing Date: April 19, 2001  
Examiner: Not Yet Assigned Group Art Unit: Not Yet Assigned  
Docket No.: M-15218-1C US Confirmation No.

Irvine, California  
September 28 2004

Mail Stop AMENDMENT  
Commissioner for Patents  
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Alexandria, VA 22213-1450

INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §1.56

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It is requested that the information identified in this statement be considered by the Examiner and made of record in the above-identified application. This statement is not intended to represent that a search has been made or that the information cited in the statement is, or is considered to be, material to patentability as defined in 37 C.F.R. §1.56.

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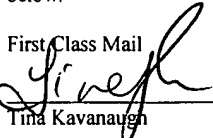
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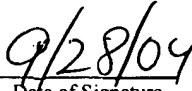


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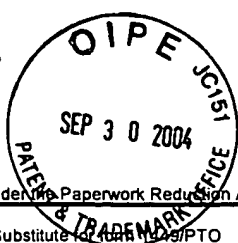
Respectfully submitted,



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|------------------------|--------------------------|
| Application Number     | 09/838,700               |
| Filing Date            | April 19, 2001           |
| First Named Inventor   | Srivatsa Venkatasubbarao |
| Art Unit               | Not Yet Assigned         |
| Examiner Name          | Not Yet Assigned         |
| Attorney Docket Number | M-15218-1C US            |

| U. S. PATENT DOCUMENTS |                          |  |                                   |  |   |
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| Examiner<br>Initials*  | Cite<br>No. <sup>1</sup> | Document Number                          | Publication<br>Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|                        |                          | Number-Kind Code <sup>2</sup> (if known) |                                   |  |   |
|                        |                          | US- 2004/0023247A1                       | 02-05-2004                        | Xu et al.  |   |
|                        |                          | US- 2004/0012676A1                       | 01-22-2004                        | Weiner et al.                                      |   |
|                        |                          | US- 2004/0030504A1                       | 02-12-2004                        | Helt et al.  |   |
|                        |                          | US- 2004/0038268A1                       | 02-26-2004                        | Pirrung et al.                                     |   |
|                        |                          | US- 2004/0002167A1                       | 01-01-2004                        | Andersson et al.                                   |   |
|                        |                          | US- 2002/0182717A1                       | 12-05-2002                        | Karlsson   |   |
|                        |                          | US- 2002/0154311A1                       | 10-24-2002                        | Ivarsson   |   |
|                        |                          | US- D472,644S                            | 04-01-2003                        | Dawson et al.                                      |   |
|                        |                          | US- D480,149S                            | 09-30-2003                        | Dawson et al.                                      |   |
|                        |                          | US- 6,698,454B2                          | 03-02-2004                        | Sjoelander et al.                                  |   |
|                        |                          | US- 6,589,798B1                          | 07-08-2003                        | Loefas   |   |
|                        |                          | US- 6,503,760 B2                         | 01-07-2003                        | Malmqvist et al.                                   |   |
|                        |                          | US- 2003/0022388A1                       | 01-30-2003                        | Roos et al.  |   |
|                        |                          | US- 6,493,097 B1                         | 12-10-2002                        | Ivarsson   |   |
|                        |                          | US- 20002/0019019                        | 02-14-2002                        | Hamalainen et al.                                  |   |
|                        |                          | US- 6,289,286                            | 09-11-2001                        | Andersson et al.                                   |   |
|                        |                          | US- 5,753,518                            | 05-19-1998                        | Karlsson   |   |
|                        |                          | US- 5,593,130                            | 01-14-1997                        | Hansson et al.                                     |   |
|                        |                          | US- 5,164,589                            | 11-17-1992                        | Sjoedin  |   |

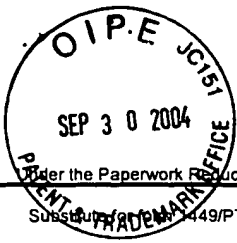
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|                          |                       | WO 03/102580A1  | 12-11-2003                     | Saeften et al.                                  |   |                |
|                          |                       | WO 03/056337A1  | 07-10-2003                     | Loefas  |   |                |
|                          |                       | AU 742417   | 02-11-2000                     | Ivarsson  |   |                |
|                          |                       | WO 98/32002   | 07-23-1998                     | Herbai et al.                                   |   |                |
|                          |                       | WO 97/19375   | 05-29-1997                     | Ivarsson et al.                                 |   |                |
|                          |                       | WO 96/38729   | 12-05-1996                     | Wahlstroem et al.                               |   |                |

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|------------------------|--------------------------|
| Application Number     | 09/614,503               |
| Filing Date            | April 19, 2001           |
| First Named Inventor   | Srivatsa Venkatasubbarao |
| Art Unit               | Not Yet Assigned         |
| Examiner Name          | Not Yet Assigned         |
| Attorney Docket Number | M-15218-1C US            |

**U. S. PATENT DOCUMENTS**

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|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
|                    |                       | US- 5,313,264                            | 05-17-1994                     | Ivarsson et al.                                    |   |
|                    |                       | US- 5,573,956                            | 11-12-1996                     | Hanning  |   |
|                    |                       | US- 2003/0067612A1                       | 04-10-2003                     | Ivarsson   |   |
|                    |                       | US- 6,277,330 B1                         | 08-21-2001                     | Liu et al.   |   |
|                    |                       | US- 4,508,832                            | 04-00-1985                     | Carter et al.                                      |   |
|                    |                       | US- 5,229,833                            | 07-00-1993                     | Stewart  |   |
|                    |                       | US- 5,255,075                            | 10-00-1993                     | Cush   |   |
|                    |                       | US- 5,437,840                            | 08-00-1995                     | King et al.  |   |
|                    |                       | US- 5,483,346                            | 01-00-1996                     | Butzer   |   |
|                    |                       | US- 5,485,277                            | 01-00-1996                     | Foster   |   |
|                    |                       | US- 5,491,556                            | 02-00-1996                     | Stewart et al.                                     |   |
|                    |                       | US- 5,633,724                            | 05-00-1997                     | King et al.  |   |
|                    |                       | US- 5,856,873                            | 01-00-1999                     | Naya et al.  |   |
|                    |                       | US- 6,594,011                            | 07-00-2003                     | Kempen   |   |
|                    |                       | US-                                      |                                |  |   |
|                    |                       | US-                                      |                                |  |   |
|                    |                       | US-                                      |                                |  |   |
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**FOREIGN PATENT DOCUMENTS**

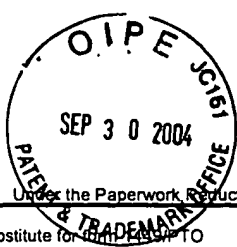
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|                    |                       | WO 96/08720   | 03-21-1996                     | Sternesjoe et al.                                  |   |                |
|                    |                       |   |                                |  |   |                |
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|   |   |    |   | Application Number       | 09/838,700         |
|   |   |    |   | Filing Date              | April 19, 2001     |
|   |   |    |   | First Named Inventor     | S. Venkatasubbarao |
|   |   |    |   | Art Unit                 | Not Yet Assigned   |
|   |   |    |   | Examiner Name            | Not Yet Assigned   |
| Sheet   | 3 | of | 5 | Attorney Docket Number   | M-15218-1C US      |

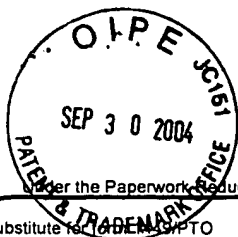
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|                                 |                       | TADASHI SAITOH, ET AL. "Optical Characterization of Very Thin Hydrogenated Amorphous Silicon Films Using Spectroscopic Ellipsometry"; Japanese Journal of Applied Physics; Vol. 30, No. 11B, November 1991. pp. L1914-L1916                                     |                |
|                                 |                       | "Handbook of Optics", Michael Bass Editor in Chief, by The Optical Society of America; Vol. 1; pp. 4.23, 4.24; 1995 McGraw-Hill, Inc.   |                |
|                                 |                       | GANG JIN ET AL. "Imaging Ellipsometry Revisited: Developments for Visualization of Thin Transparent Layers on Silicon Substrates", American Institute of Physics, Rev. Sci. Instrum., pp. 2930-2936, August 1996,   |                |
|                                 |                       | MAX BORN ET AL. "Principles of Optics – Electromagnetic Theory of Propagation, Interference and Diffraction of Light", Sixth Edition, pp. 47-51 Pergamon Press  |                |
|                                 |                       | EGGINS, "Biosensors: An Introduction", pp. 112-113, 1987 John Wiley & Sons  |                |
|                                 |                       | DANNY VAN NOORT ET AL. "Monitoring Specific Interaction of Low Molecular Weight Biomolecules on Oxidized Porous Silicon Using Ellipsometry", Biosensors & Bioelectronics Vol. 13, No.3-4 pp. 439-449, 1998 Elsevier Science, S.A. Great Britain                 |                |
|                                 |                       | GANG JIN ET AL. "Imaging Ellipsometry for Biosensor Applications" Transducers '95, Eurosensors IX, Digest of Technical Papers Vol 2, Sessions A7-D13, Papers No 232-496 pp. 509-512, Stockholm, Sweden, June 1995   |                |
|                                 |                       | JINYU WANG "Waveguide Ellipsometry Biosensors: Concept and Preliminary Analysis", SPIE Vol. 1648, Fiber Optical Medical and Fluorescent Sensors and Applications pp. 44-50. 1992  |                |
|                                 |                       | ULF JONSSON ET AL. "Flow-Injection Ellipsometry – An in Situ Method for the Study of Biomolecular Adsorption and Interaction at Solid Surfaces," Colloids and Surfaces. 13 (1985) pp. 333-339, 1985 Elsevier Science Publishers BV, Amsterdam, The Netherlands  |                |
|                                 |                       |   |                |

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| Examiner Name          | Not Yet Assigned   |
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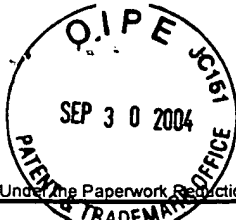
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|-----------------------|--------------------------|---|----------------|
|                       |                          | JONSSON, ULF ET AL. "Biosensors Based on Surface Concentration Measuring Devices-The Concept of Surface Concentration" Progress in Colloid and Polymer Sci. Vol. 70, pp. 96-100, 1985   |                |
|                       |                          | ULF JONSSON ET AL. "Surface Immobilization Techniques in Combination with Ellipsometry" Methods in Enzymology Vol. 137, Immobilized Enzymes and Cells Part D pp. 381-1351, 1988 Academic Press, Inc. Harcourt Brace Jovanovich, Publishers                      |                |
|                       |                          | CH STRIEBEL ET AL. "Characterization of Biomembranes by Spectral Ellipsometry. Surface Plasmon Resonance and Interferometry with Regard to Biosensor Application", Biosensors & Bioelectronics 9, pp.139-146, 1994 Elsevier Science Publishers Ltd.             |                |
|                       |                          | HAKEN NYGREN ET AL. "Determination by Ellipsometry of the Affinity of Monoclonal Antibodies", Journal of Immunological Methods, 92, pp.219-225, 1986 Elsevier Science Publishers Ltd.   |                |
|                       |                          | JOHN F. PLACE ET AL. "Opto-electronic Immunosensors: A Review of Optical Immunoassay At Continuous Surfaces", Biosensors 1, pp.321-353, 1985 Elsevier Applied Science Publishers Ltd., England  |                |
|                       |                          | A. BRECHT ET AL. "Biosensors: Fundamentals, Technologies and Applications" GBF Monographs, Vol. 17, pp.174-178, 1991 Germany  |                |
|                       |                          | T.A. RUZGAS ET AL. Ellipsometric Immunosensors for the Determination of $\gamma$ Interferon and Human Serum Albumin Biosensors & Bioelectronics 7, pp.305-08, 1992 Elsevier Science Publishers Ltd.   |                |
|                       |                          | CLIFFORD C. HOYT ET AL. "Structural analysis with quantitative birefringence imaging", American Laboratory, pp. 34-42, July 1999  |                |
|                       |                          | DIRK HONIG ET AL. "Direct visualization of monolayers at the air-water interface by Brewster angle microscopy", J. Phys. Chem., pp. 4590 & 4592, 1991 American Chemical Society   |                |
|                       |                          | S. HENON ET AL. "Microscope at the Brewster angle: direct observation of first-order phase transitions in monolayers", Rev. Sci. Instrum. 62, (4) pp. 936-939, April 1991 American Institute of Physics   |                |

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Application Number

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Filing Date

April 19, 2001

First Named Inventor

S. Venkatasubbarao

Art Unit

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|-----------------------|--------------------------|---|----------------|
|                       |                          | GANG JIN ET AL. "A biosensor concept based on imaging ellipsometry for visualization of biomolecular interactions", Analytical Biochemistry 232, pp.69-72, 1995   |                |
|                       |                          | PENTTI TENGVAL ET AL. "Complement activation by 3-mercapto-1,2-propanediol immobilized on gold surfaces", Biomaterials Vol. 17, No. 10 pp. 1001-1007, 1995 Elsevier Science Ltd., Great Britain   |                |
|                       |                          | H. ARWIN "Spectroscopic ellipsometry and biology: recent developments and challenges", Thin Solid Films 313-314, pp.7640774, 1998 Elsevier Science S.A.   |                |
|                       |                          | CHRISTOPHER PALMER "Diffraction Grating Handbook", pp. 35-44, 2000 Richardson Grating Laboratory, Rochester, New York   |                |
|                       |                          | ERWIN G. LOEWEN "Diffraction Gratings, Ruled and Holographic", Applied Optics and Optical Engineering, Vol. IX, pp.33-71, Bausch and Lomb, Inc., Rochester, New York 1983 Academic Press, Inc.  |                |
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